

#### ABSTRACT OF THE DISCLOSURE

A fast translation stage for a scanning probe microscope is provided. The stage includes at least one axis of translation driven at the natural resonant frequency of the translation stage such that distortion associated with rapid changes in scan direction is avoided. In one embodiment, the stage includes a sample plate or support that is driven, preferably by one or more piezoelectric actuator elements, so that the plate translates along the fast scan frequency at its resonant frequency.